18” Wood/Metal Bandsaw
Model: 10-370

RIKON POWER TOOLS

Owner’s Manual

Record the serial number and date of purchase in your manual for future reference.

Serial number: _____

Date of purchase: _____

For more information:

www.rikontools.com or info@rikontools.com

For Parts or Questions:

techsupport@rikontools.com or 877-884-5167

Part #10-370M1

Operator Safety: Required Reading

IMPORTANT! Safety is the single most important consideration in the operation of this equipment. **The following instructions must be followed at all times.**

There are certain applications for which this tool was designed. We strongly recommend that this tool not be modified and/or used for any other application other than that for which it was designed. If you have any questions about its application, do not use the tool until you have contacted us and we have advised you.

General Safety Warnings

KNOW YOUR POWER TOOL. Read the owner's manual carefully. Learn the tool's applications, work capabilities, and its specific potential hazards.

⚠ DANGER

ALWAYS GROUND ALL TOOLS.
If your tool is equipped with a three-pronged plug, you must plug it into a three-hole electric receptacle. If you use an adapter to accommodate a two-pronged receptacle, you must attach the adapter plug to a known ground. Never remove the third prong of the plug.

ALWAYS AVOID DANGEROUS ENVIRONMENTS.
Never use power tools in damp or wet locations. Keep your work area well lighted and clear of clutter.

⚠ DANGER

ALWAYS REMOVE THE ADJUSTING KEYS AND WRENCHES FROM TOOLS AFTER USE.
Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

ALWAYS KEEP YOUR WORK AREA CLEAN. Cluttered areas and benches invite accidents.

⚠ DANGER

ALWAYS KEEP VISITORS AWAY FROM RUNNING MACHINES.
All visitors should be kept a safe distance from the work area.

ALWAYS MAKE THE WORKSHOP CHILDPROOF.
Childproof with padlocks, master switches, or by removing starter keys.

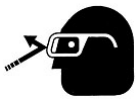
⚠ DANGER

NEVER OPERATE A TOOL WHILE UNDER THE INFLUENCE OF DRUGS, MEDICATION, OR ALCOHOL.

⚠ DANGER

ALWAYS WEAR PROPER APPAREL.
Never wear loose clothing or jewelry that might get caught in moving parts. Rubber-soled footwear is recommended for the best footing.

⚠ DANGER



ALWAYS USE SAFETY GLASSES AND WEAR HEARING PROTECTION.
Also use a face or dust mask if the cutting operation is dusty.

⚠ DANGER

NEVER OVERREACH.
Keep your proper footing and balance at all times.

⚠ DANGER

NEVER STAND ON TOOLS.
Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

⚠ DANGER **ALWAYS DISCONNECT TOOLS**.
Disconnect tools before servicing and when changing accessories such as blades, bits, and cutters.

ALWAYS AVOID ACCIDENTAL STARTING.
Make sure switch is in “OFF” position before plugging in cord.

NEVER LEAVE TOOLS RUNNING UNATTENDED.

⚠ DANGER **ALWAYS CHECK FOR DAMAGED PARTS.**

Before initial or continual use of the tool, a guard or other part that is damaged should be checked to assure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other damaged parts should immediately be properly repaired or replaced.

Special Safety Rules For Bandsaws

1. Always allow the Bandaw blade to stop before removing scrap pieces from table.
2. Always keep hands and fingers away from the blade.
3. Never attempt to saw stock that does not have a flat surface, unless a suitable support is used.
4. Always hold material firmly and feed it into the blade at a moderate speed.
5. Always turn off the machine if the material is to be backed out of an uncompleted cut.
6. Adjust the upper guide about 1/8” above the material being cut.
7. Check for proper blade size and type for thickness and type of material being cut.
8. Make sure that the blade tension and blade tracking are properly adjusted.
9. Make “relief” cuts before cutting long curves.
10. Release blade tension when the saw will not be used for a long period of time.

Note: This owner’s manual is not a teaching aid. Use of this owner’s manual is intended to show assembly, adjustments, and general use.

California Proposition 65 Warning

WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.Your risk from exposure to these chemicals varies, depending on how often you do this type of work. To reduce your exposure, work in a well-ventilated area and with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

For more detailed information about California Propostion 65 log onto rikontools.com.

SAVE THESE INSTRUCTIONS.
Refer to them often.

Table of Contents

Specifications

Throat width	18-3/8" (467 mm)
Max. cutting depth	12" (305 mm)
Blade length	142" (3607 mm)
Blade width	1/4" – 1-1/4"(6-32 mm)
Table size	21"x 19" (534 mm x 483 mm)
Table tilt	Left-10° Right-45°
Blade speeds	VS 82-1312 / 328-3280 ft/min
Motor	2.5 HP
Amps	12.5
Volts	220
Net weight	400 lbs

Contents of Package

Model 10-370 18” Wood/Metal Bandsaw is shipped complete in one box.

Unpacking and Checking Contents

a. Separate all “loose parts” from packaging materials and check each item with “Table of Loose Parts” to make sure all items are accounted for, before discarding any packaging material.

b. Thread hoist ring into threading hole on top of Bandsaw frame. This allows the user to connect a properly secured hoist mechanism to lift the Bandsaw.

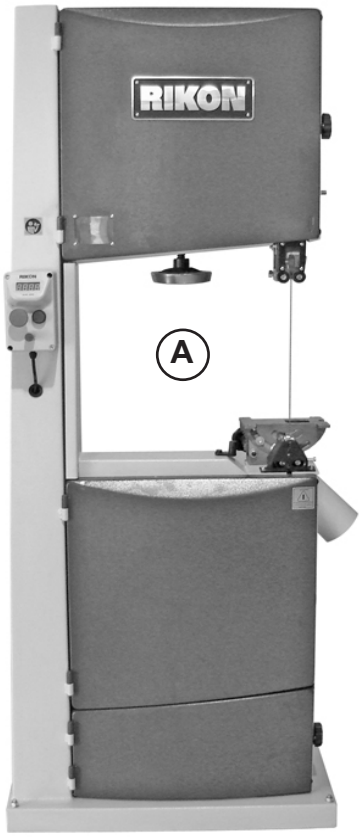
c. With the help of another person or by installing hoist ring, unbolt the Bandsaw from the packing pallet. Properly lift the Bandsaw off the packing pallet and place on level floor.

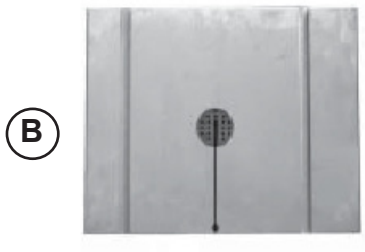
d. Remove protective oil that is applied to the table. Use any ordinary house hold type grease or spot remover.

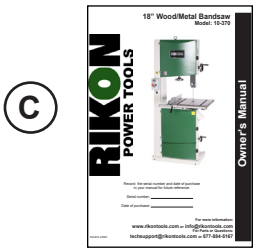
e. Apply a coat of paste wax to the table to prevent rust. Wipe all parts thoroughly with a clean dry cloth.

TABLE OF LOOSE PARTS

Item	Part Name	Qty
A	Bandsaw Assembly	1
B	Table w/insert	1
C	Owner’s manual	1
D	Parts Package 1	1
E	Parts Package 2	1



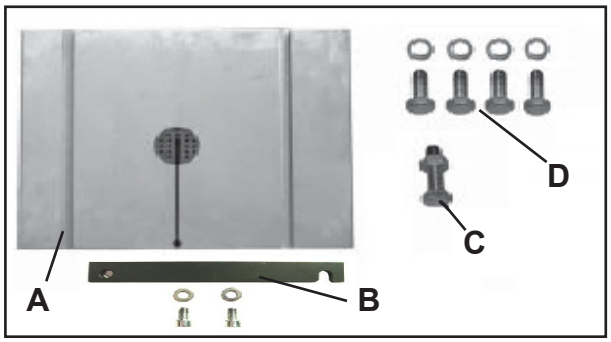




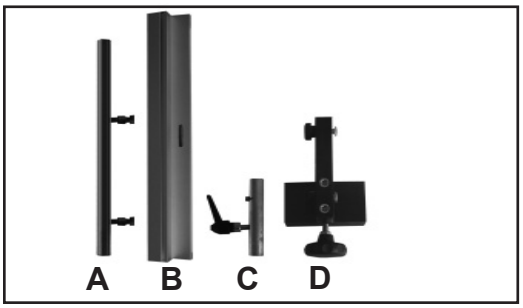
Loose Parts List

LIST OF LOOSE PARTS

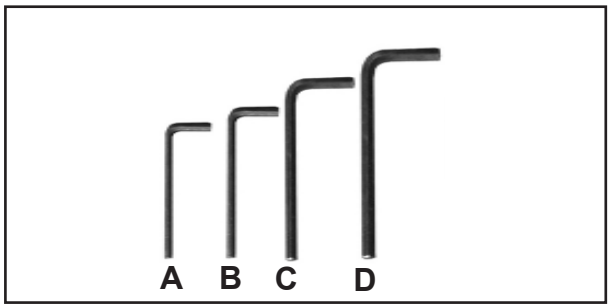
Table assembly:
A. Table
B. Table leveling bar and hardware
C. 90° table stop bolt
D. Table mounting bolts and washers



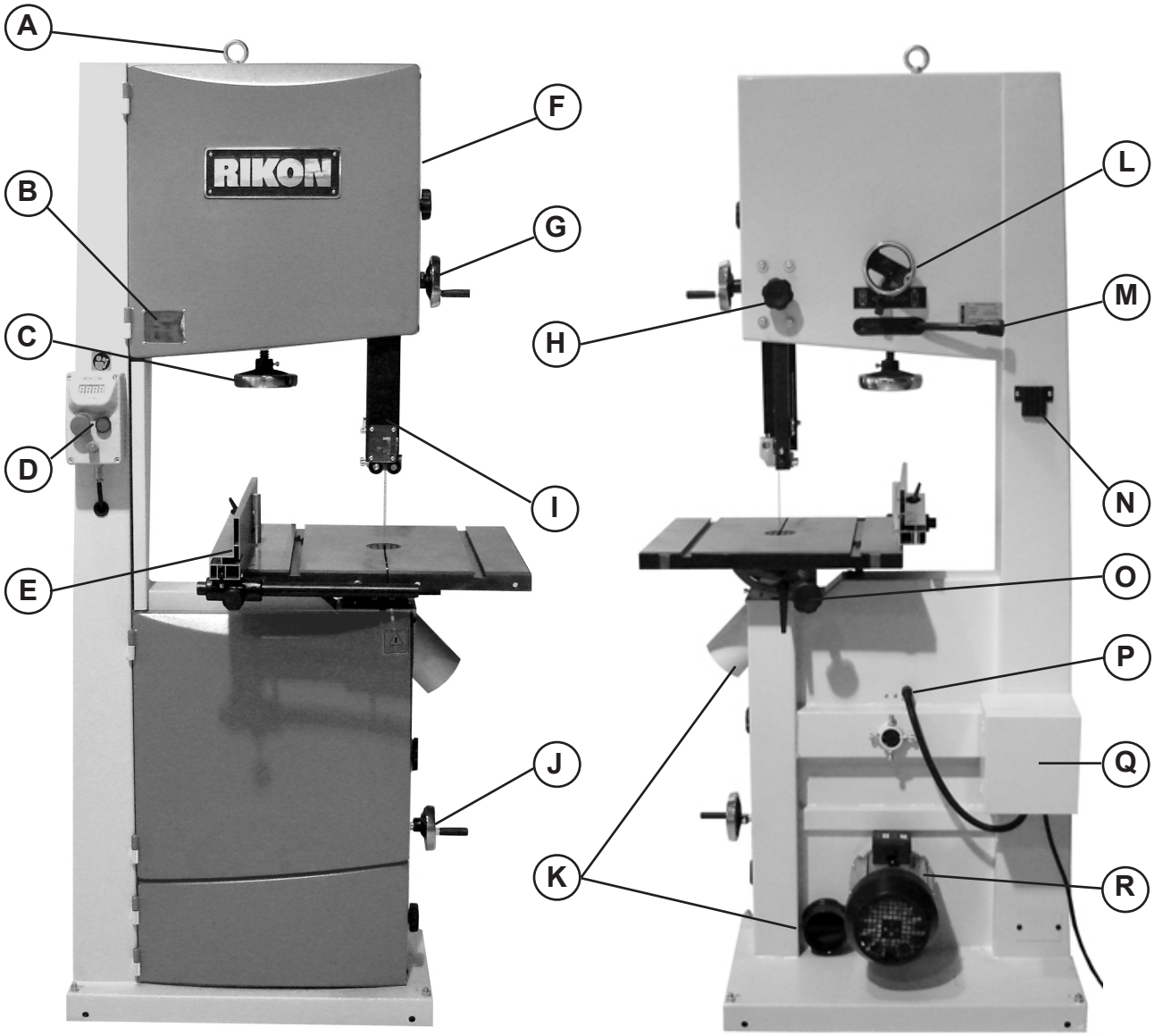
Rip fence assembly:
A. Fence bar
B. Fence
C. Resaw bar
D. Fence carrier



Tool holder assembly:
A. L wrench 3MM
B. L wrench 4MM
C. L wrench 5MM
D. L wrench 6MM



Getting to Know Your Bandsaw



A. Hoist Ring
B. Tension Indicator Window
C. Blade Tension Hand-Wheel
D. Switch
E. Rip Fence
F. Blade Tracking Window
G. Guide Post Hand-Wheel
H. Guide Post Lock Knob
I. Hinged Blade Guard
J. Drive Belt Tension Wheel
K. 4” Dust Ports
L. Blade Tracking Knob
M. Quick Release Lever
N. Tool Holder
O. Table Tilt & Lock Knobs
P. Speed Sensor Cable
Q. VFD Control Housing
R. Motor

Assembly

The 10-370 Bandsaw is supplied partly assembled. Prior to use, the following items have to be assembled: switch, working table, rip fence and hand-wheels.

Warning!

To ensure sufficient upright stability and safety of this bandsaw, you need to bolt the bandsaw to the floor with M10 screws.(Fig 1) (not supplied).

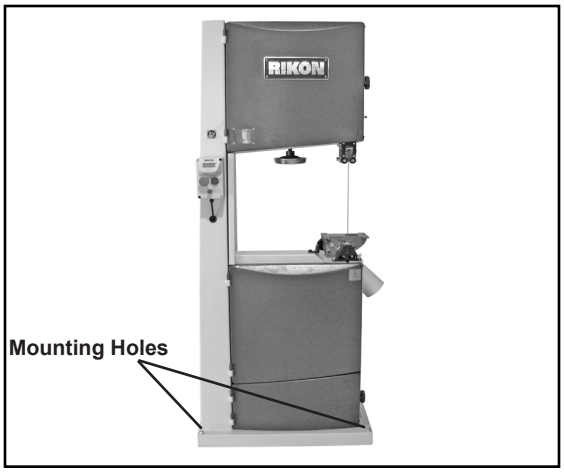


Figure 1

Installing the Switch Box

Remove the two screws that were pre-installed on the bandsaw column (A-Fig.2). These screws will be used to mount the switch box to the column.

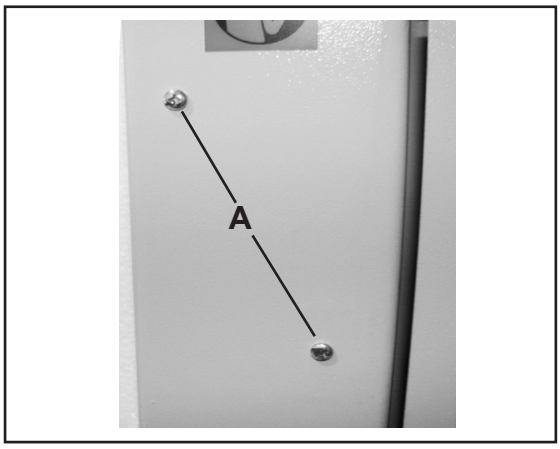


Figure 2

Loosen the four screws (A-Fig.3) on the front of the switch box with a flat-head screw driver. Carefully separate the control panel from the switch box.

Caution!

Take extra care when handling the control panel as wires are attached to the switch box. Do not allow the control panel to be supported or hang by the wiring as damage can occur to the electronics.

Figure 3

Assembly

Installing the Switch Box Cont.

Mount the switch by using the corresponding holes (A-Fig.5) in the back of the switch box. Use screws that were removed from the frame shown in Fig.3. to mount switch box to the column.

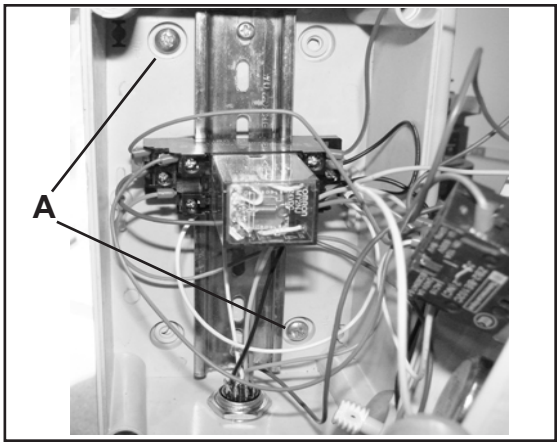


Figure 5

Next, install the control panel to the switch box. Make sure that wires in the switch box do not become cut or pinched while intalling the control panel. Tighten the four control panels screws (A-Fig.6) with a flat-head screw driver.

Caution!

Take extra care when handling the control panel as wires are attached to the switch box. Do not allow the control panel to be supported or hang by the wiring as damage can occur to the electronics.

Figure 6

Work Table Assembly

Installing 90° table stop:
Thread screw (M8x25) and nut (M8-1.25) to the bottom of the table. (Shown Fig.7A)

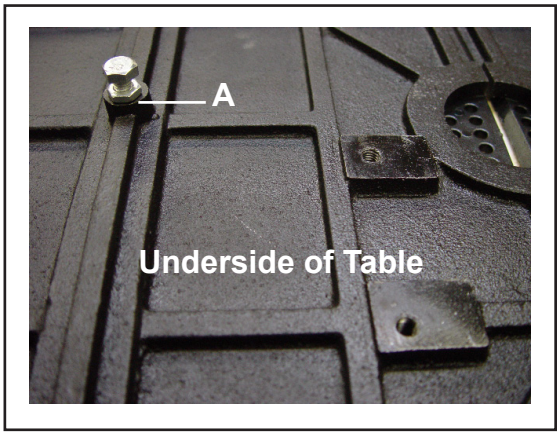


Figure 7

With the help of another person, lift the work table onto the trunnion (A-Fig.8).

Mount the work table to the trunnion using the supplied (4) hex bolts, (4) lock washers and (4) washers (B-Fig.8).

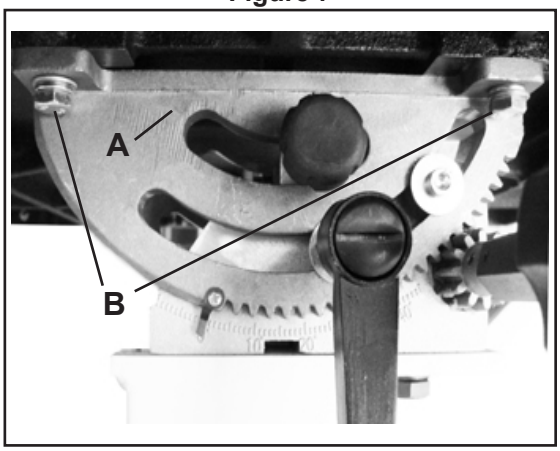


Figure 8

Assembly

Work Table Assembly

Installing Table Leveling Bar:
Locate the table leveling bar, two hex socket screws and two washers (A-Fig.9 Inset).

Insert a hex socket screw and washer through the left hole of the table leveling bar and into the threaded hole on the left side of the blade slot (B-Fig.9). Make sure that the opening of the slot on the right side of the table leveling bar faces toward the table trunnion. This will allow the table leveling bar to open outward from the bandsaw.

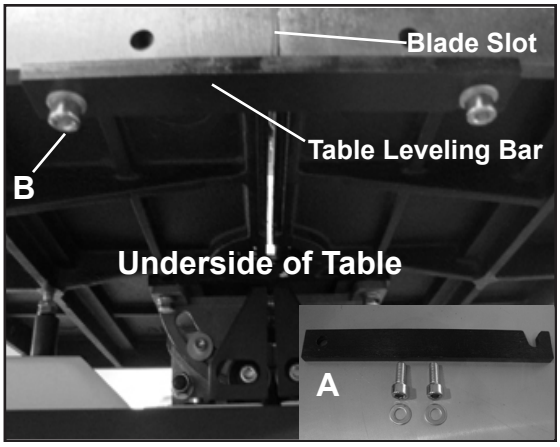


Figure 9

Rip Fence Assembly

With a 13mm wrench, remove one 13mm hex nut and one washer from each stud on the fence bar (A-Fig.10). Leave one each of 13mm hex nut and washer on each stud on the fence bar. The remaining nut and washer will be used for drift adjustments that will be described later in this manual.

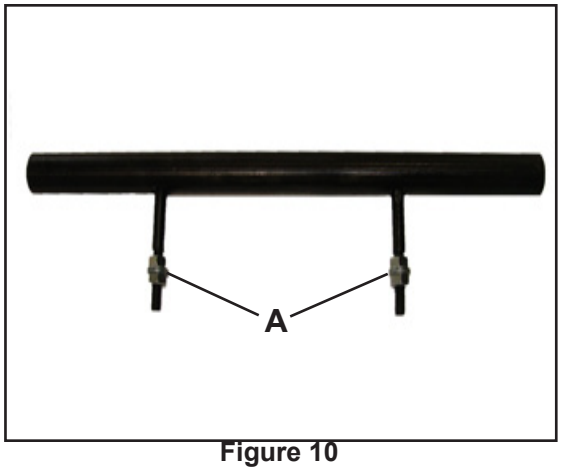


Figure 10

Next, install the fence bar studs into the table as shown (Fig.11). Locate the 13mm hex nuts and washers removed in Fig.10 and install on the opposite ends of each fence bar stud. NOTE: It may be necessary to open the table leveling bar to gain access to the right side fence bar stud.

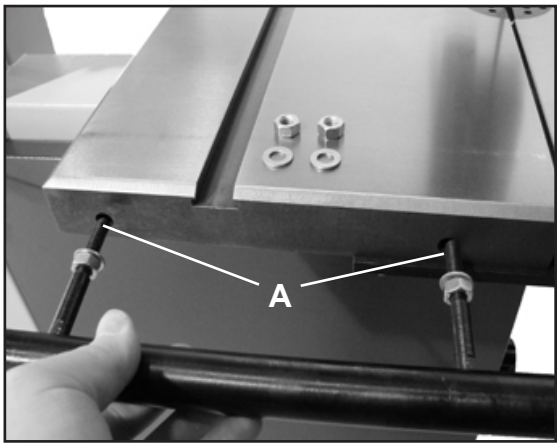


Figure 11

Hand Wheel Installation

There are two hand wheels used on the 10-370 Wood/ Metal bandsaw. The first controls the height of the upper guide post, the second adds/removes tension on the drive belt.

Attach the first hand wheel (Fig.12) to the rack and pinion shaft on the upper part of the bandsaw, using the 5mm “L” wrench provided.

Attach the second crank handle to the belt and speed control rod located below the 4” dust port, using the 5mm “L” wrench provided.

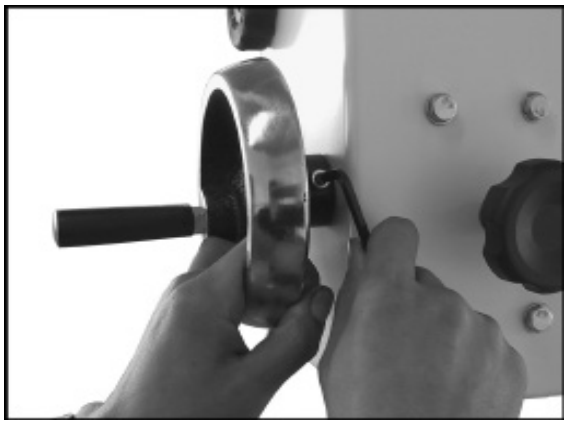


Figure 12

Assembly

Storage for the “L” wrenches is provided for quick access when adjustments are needed.

Place the (4) “L” wrenches (3mm, 4mm, 5mm and 6mm) in the tool holder on the rear column support (Fig.13).

Figure 13

Adjustments

Setting the Table Square to Saw Blade

The table may be set at 90° to the saw blade sides by adjusting the table stop screw under the table. The table stop screw rests on the top of the quick release adjustment stop. By first loosening the locking nut (A-Fig.14) and then adjusting the screw (B-Fig.14), the table can be set correctly. Retighten the locking nut (A-Fig.14) making sure that the setting is maintained.

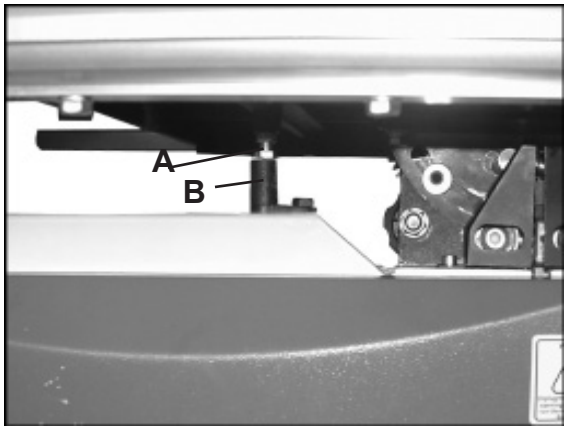


Figure 14

The table may also be set at 90° to the back of the saw blade by adjusting the four trunnion micro adjustment screws (A-Fig.15). First, slightly loosen part #98 (refer to parts explosion on page 18 of this manual). Using the 3mm “L” wrench, turn the rear trunnion micro adjusting screws part #125. Turning the screws clockwise will raise the trunnion; counterclockwise will lower. Check table for 90° and tighten part #98.

(Trunnion has been removed from bandsaw for clarity. Micro adjusting screws are raised to exaggerate location. Only two of the four micro adjusting screws shown.)

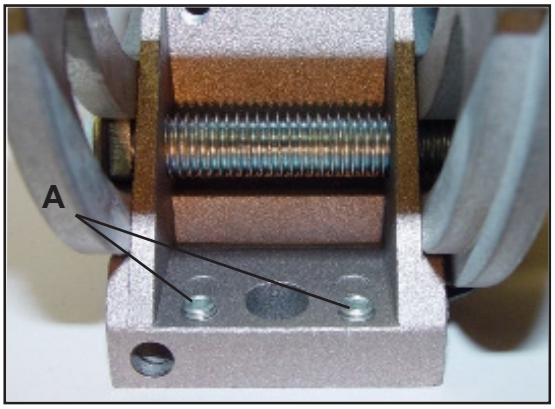


Figure 15

Tilting the Table

Loosen the lock handle (A-Fig.16) on the table trunnion. Turn the table tilting knob (B-Fig.16) to adjust the table to the desired angle. Use the angle indicator scale on the trunnion bracket to find the desired angle. Retighten the lock handle to secure the table.

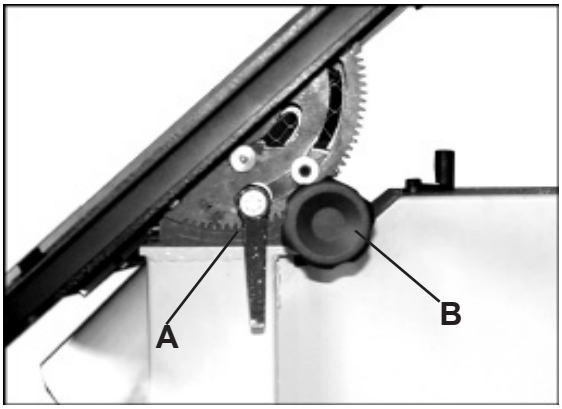


Figure 16

Adjustments

Tracking the Saw Blade

Warning! Unplug the bandsaw. Make sure the upper and lower blade guides are adjusted away from the blade and the tension scale is set to correspond to the width of the blade you are using.

Note: The blade tension scale may read differently due to cut specifications of the blade manufacturer. It might be necessary to increase/decrease tension up/down one size on blade tension scale to achieve proper blade tension.

Open both doors. Loosen the lock lever (A-Fig.17) by turning it counter clockwise and turn the blade tracking knob (B-Fig.17) clockwise/counterclockwise while turning the upper wheel by hand at least three rotations until the blade tracks centered on the wheel. Finally, tighten the lock lever and close the doors.

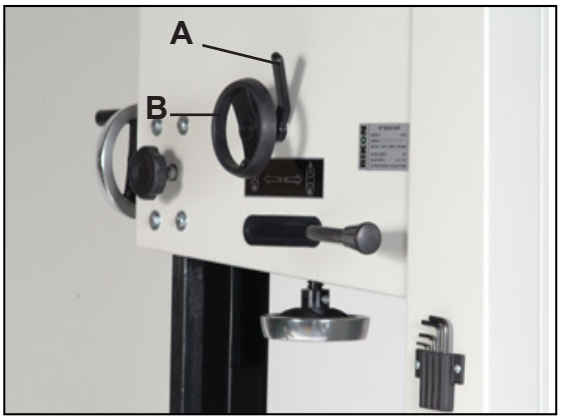


Figure 17

Adjusting the Blade Tension

The 10-370 has a quick release blade function which allows for fast blade changing and tensioning. The quick release lever is shown in figure 18.

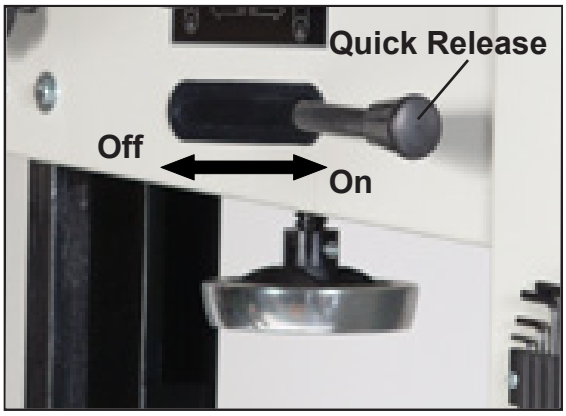


Figure 18

To loosen the tension of the blade, turn the blade tension handwheel (A-Fig.19) counter clockwise. To tighten the tension of the blade, turn the blade tension handwheel clockwise.

Tension the blade until the tension readings correspond to the width of blade you are using by viewing through the tension indicator window (B-Fig.19).

Note: The blade tension scale may read differently due to cut specifications of the blade manufacturer. It might be necessary to increase/decrease tension up/down one size on blade tension scale to achieve proper blade tension.

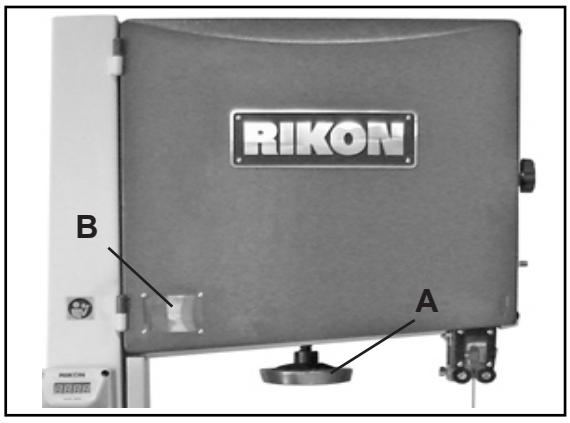


Figure 19

Caution! Always tension the blade with the quick release lever in the “On” position. Failure to do so could result in lack of blade tension or tension failure.

Blade Tension Indicator Adjustment

The blade tension indicator can be adjusted for blades known to be cut over/under length by different manufacturers. With moderate tension on the blade loosen the two adjusting screws with a Phillips-head screw driver (A-Fig.20). Adjust the blade indicator bracket up/down as needed (B-Fig.20) and re-tighten the two adjusting screws.

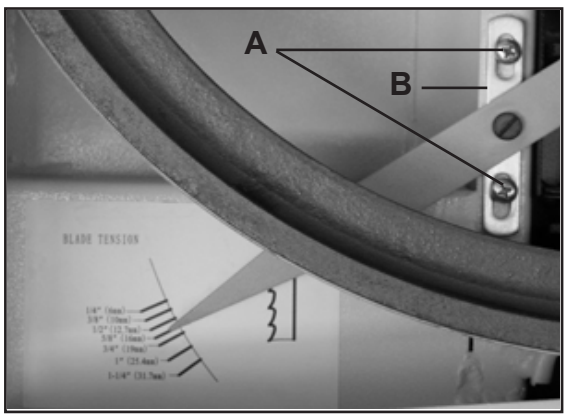


Figure 20

Adjustments

Changing the Bandsaw Blade

Warning! Unplug the machine from the electrical supply. This ensures that the Bandsaw will not accidentally turn on if the ON/OFF switch is bumped.

a) Open the top and bottom wheel doors by turning the door locking knobs. (A-Fig.21)
b) Release the blade tension by moving the quick release lever (A-Fig.22) from right to left. Open the hinged door on the blade guard by loosening the hex screw (A-Fig. 23). Loosen then open the table leveling bar (A-Fig. 24).
c) Remove the saw blade by feeding it through the slot in the table (B-Fig. 24), upper and lower blade guides and the slot in the spine of the machine, being careful not to cut yourself. Wear gloves for protection.
d) When installing the new blade, ensure the blade teeth are pointing downwards and towards you at the position where the blade passes through the table.
e) Center the blade on both wheels.
f) Re-tension the new blade by moving the quick release lever (A-Fig.21) left to right and check the blade tracking. Spin the upper wheel clockwise three times. The blade should run in the center of both wheels. Refer to “Tracking the Saw Blade” on page 12 for more details.
g) Set the blade guides as described in the section “Adjusting the Blade Guides” on page 14.
h) Reset the blade tension as described in the section “Adjusting the Blade Tension” on page 12.
i) Close the hinged door on the blade guard and tighten the hex screw (A-Fig.23). Close the table leveling bar and tighten (A-Fig. 24).
j) Close and lock both the wheel doors (A-Fig.21) before reconnecting the power supply.

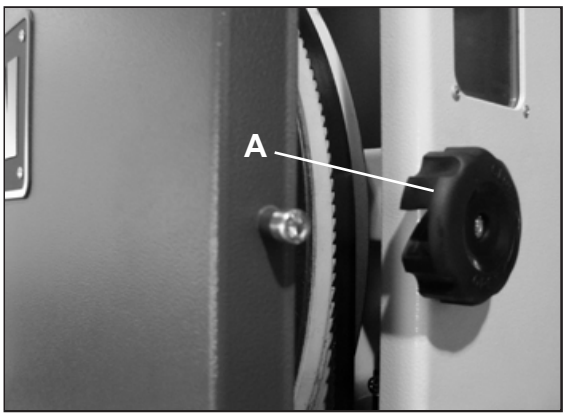


Figure 21

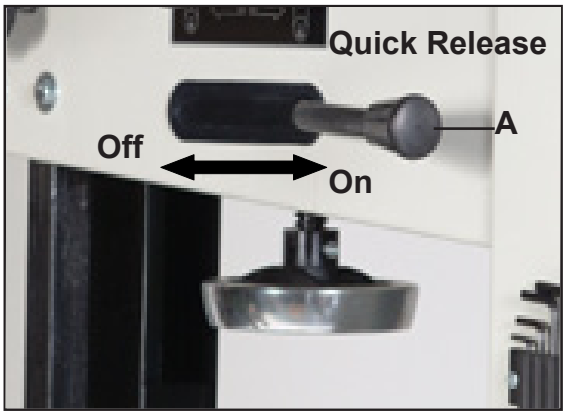


Figure 22

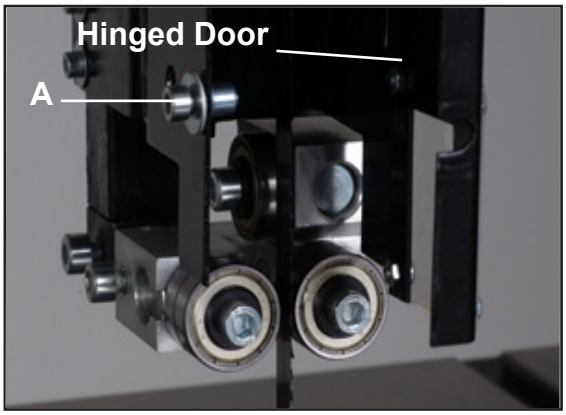


Figure 23

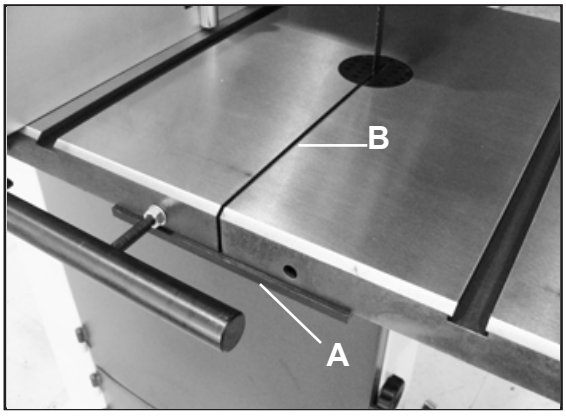


Figure 24

Adjusting the Blade Guides

Upper Guides: To adjust the upper blade guides, first position the roller guides relative to the blade by loosening the locking hex screw (A-Fig.25) and moving the guide carrier until the roller guides are approximately 1/16” behind the gullets of the Bandsaw blade and tighten the hex nut (A-Fig.25). Next set the roller guides to within 1/32” of the blade by releasing the screw (B-Fig.25) on each side of the blade. Do not set the guides too close, as this will adversely affect the life of the blade. Finally, adjust the thrust bearing to be just clear of the back of the blade by unlocking the hex nut (C-Fig.25). When the correct adjustment is reached, lock the thrust bearing in position with the hex nut (C-Fig.25).

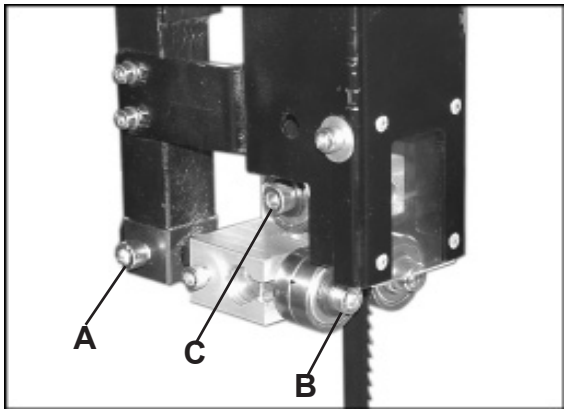


Figure 25

Lower Guides: To adjust the lower blade guides, first loosen the hex nut (A-Fig.26) then move the guide carrier casting to allow the front to be approximately 1/16” behind the gullets of the Bandsaw blade and tighten the hex nut (A-Fig.26). Next set the roller guides to within 1/32” of the blade by releasing the screw (B-Fig.26) on each side of the blade. Adjust the thrust bearing to be just clear of the back of the blade by unlocking the hex nut (C-Fig.26), and turning adjusting knob (D-Fig.26). Finally, tighten hex nut (C-Fig.26).

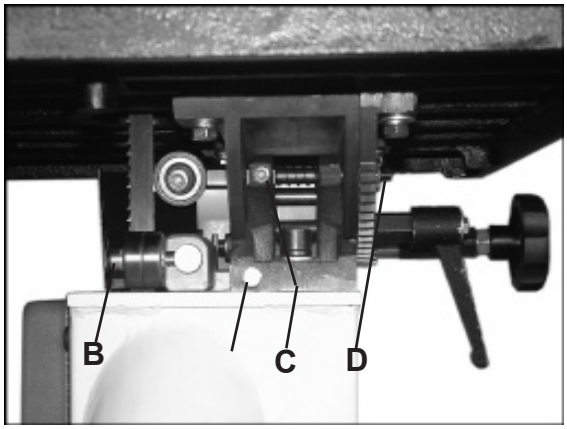


Figure 26

Make sure doors are closed, turn the bandsaw on and inspect that the upper, lower and thrust bearings are not turning. All bearings should not turn unless pressure from workpiece is applied to the blade. If bearings are turning under no pressure, repeat steps to adjust the blade guides.

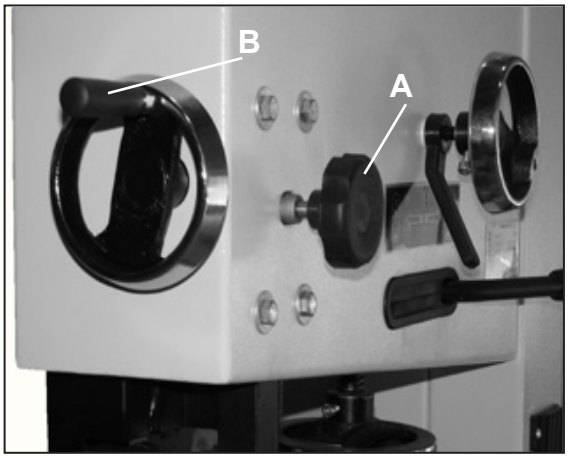


Figure 27

Adjusting the Cutting Height

Loosen the guidepost lock knob (A-Fig.27) and turn the guidepost handwheel (B-Fig.27) to raise or lower the guide post/upper blade guide assembly to the desired height. Then tighten the guidepost lock knob.

Note: The bottom edge of the guide bearings should be approximately 1/4”above the top surface of the work piece. (Fig.28)

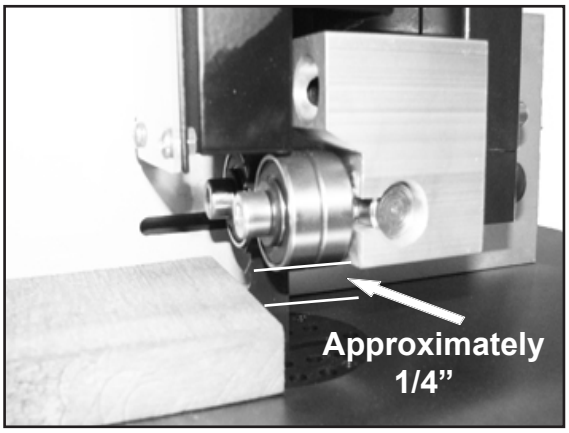


Figure 28

Changing Blade Speed Pulley Setting

Warning! Before changing the speed, always make sure the machine has been unplugged from the electrical supply.

The 10-370 has two pulley speed ranges, low speed (82-1312 ft/min) and high speed (328-3280 ft/min).

The lower wheel (A-Fig.29) has two integral “V” form pulleys, and the motor shaft has a twin multi-vee form pulley (B-Fig.29). The “V” belt (C-Fig.29) passes around the wheel pulley and the motor pulley. The belt tension is released and applied by using the handwheel (D-Fig.29).

For the high speed (328-3280 ft/min) the belt should be fitted to the rear pulley on both the motor and the wheel, as shown in Fig.29.

For the low speed (82-1312 ft/min), the belt should be fitted to the front pulley on both the motor and wheel, as shown in Fig.29.

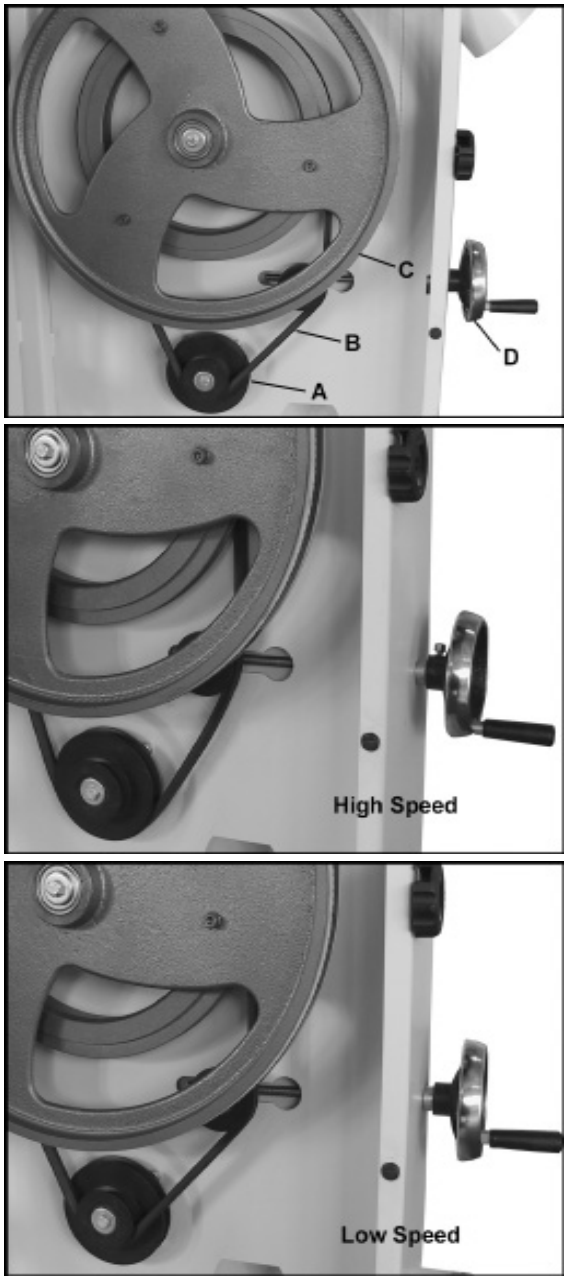


Figure 29

Setting Drive Belt Tension

To properly adjust belt tension, turn hand-wheel (D-Fig.29) until there is 1/2” deflection in the “V” belt.

Variable Speed Switch

In conjuntion with the two speed pulley system, the 10-370 Wood/Metal bandsaw also features a variable speed switch. To use with in a specific belt speed range, simply turn the bandsaw on (A-Fig.30) and rotate the variable speed dial (B-Fig.30) clockwise to increase the speed, and counter clockwise to decrease the speed. The blade speed will be indicated on the digital readout (C-Fig.30). To stop the bandsaw press the large red button (D-Fig.30).

Note: The variable speed dial will only increase speed to the highest speed shown depending on belt position. (See Fig.29)

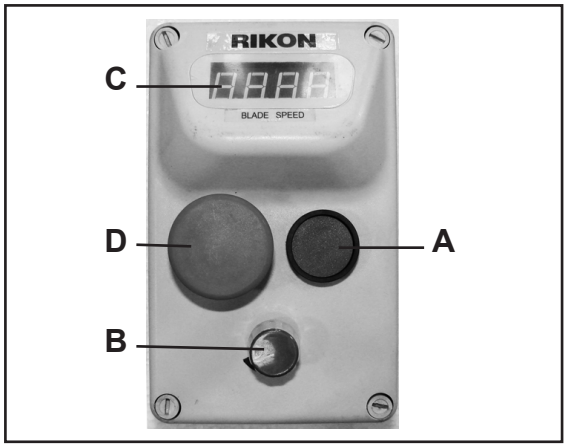


Figure 30

Adjusting the Rip Fence/Drift

Align the fence assembly in or out until parallel with the side of the blade by turning the adjustment collars and the fence bolts accordingly (A-Fig.31). If the mounting bolts have been tightened, these will need loosened off before this adjustment can be made. The same adjustment can be made to compensate for blade drift.

Check that the fence is 90 degrees to the table using a suitable square. If no adjustments are needed fully tighten the fence bar nuts. If adjustment is required, raise or lower either side of the fence rail until the fence body is 90 degree to the table. Once set at 90 degrees, fully tighten the fence bar nuts.

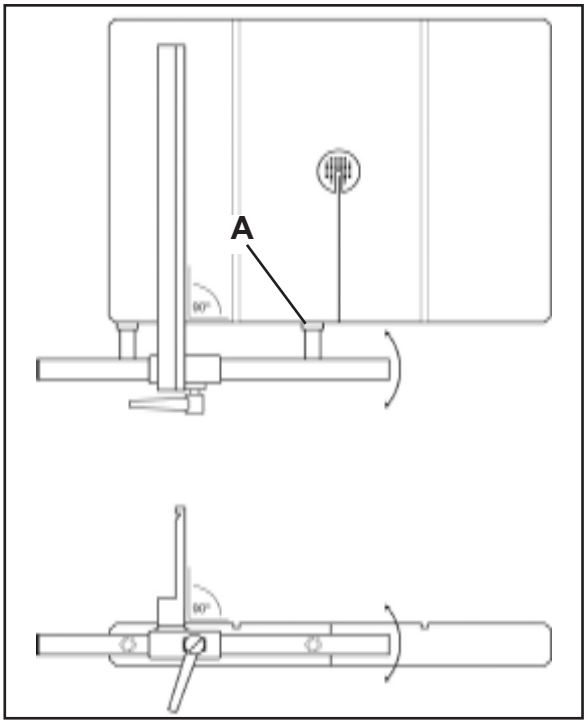


Figure 31

Re-sawing

A resaw guide is supplied with this bandsaw to help correct any blade wandering during certain resawing operations.

For resawing, attach the resaw bar to the slot on the fence. Position the resaw bar so that it is aligned with the front of the blade. Draw a reference line down the workpiece. Use the bar as a pivot point and follow the line through the cut. (Fig.32)

Note: The resaw bar is not needed for all resaw operations. Proper blade tension and selection as well as proper guide set up will allow resawing flat stock against the fence.

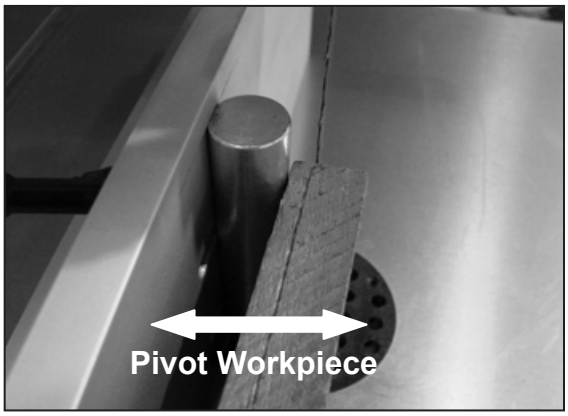


Figure 32

Basic Operation

The blade cuts on a continuous down-stroke.

With both hands, firmly hold the workpiece down on the table, and feed it towards the blade slowly, keeping your hands away from the blade.

For best results the blade must be sharp. A dull blade will not cut correctly, especially when straight cutting, and causes excess pressure to be applied on the rear guide bearings.

Select the right blade for the job, depending on the thickness of the wood and the cut to be made. The thinner and harder the wood, the finer the teeth of the blade should be. Use a fine tooth blade for cutting sharp curves.

The machine is especially suited for cutting curves, but will also make straight cuts. When cutting, follow the design marked out by pushing and turning the workpiece evenly.

Do not attempt to turn workpiece without pushing it as this may cause the workpiece to get stuck, or the blade to bend.

Metal Cutting

Warning! The 10-370 Wood/Metal bandsaw is designed for dry cutting only. Do not us lubricants/coolants with this bandsaw.

Proper blade selection for the material to be cut is key to good performance. Do not force the material into the blade as excessive heat will lead to premature blade failure. Poor cutting results will also occur. Always keep three teeth in the cut.

Stack or bundle cutting is not recommended with this bandsaw. When cutting round stock, use jigs or wedges to prevent the material from rolling into the cut.

Blade speed differs for each type or grade of metal to be cut. Below is a chart of common materials and the suggested blade speeds. The speeds shown have been reduced by 30% for dry cutting operations. It may be necessary to reduce an additional 15% due to material hardness. Changing blade type/style will also help performance.

Note: Blade speed and performance depend on proper blade selection. Consult your blade manufacturer for the proper blade and speed required for the material to be cut.

Metal Type	Blade Speed (Ft/Min)
Brass Alloys	140-154
Bronze Alloys	80-230
Cast Iron	80-157
Copper Alloys	112-206
Cr-Mo Alloy	136-164
Low/Med Carbon Steel	161-189
Stainless Steel	80-95

Cutting Plastic/Composite Material

The 10-370 Wood/Metal bandsaw is also designed for cutting plastics and composite materials.

As above, blade selection for the material to be cut is key to good performance. Do not force the material into the blade as excessive heat will lead to premature blade failure. Poor cutting results will also occur.

Stack or bundle cutting is recommended if material is properly secured during the cut. When cutting round stock, use jigs or wedges to prevent the material from rolling into the cut.

Blade speed differs for each type of material to be cut. Improper blade selection and speed may result in melting or curling the material. Changing blade type/style will also help performance.

Note: Blade speed and performance depend on proper blade selection. Consult your blade manufacturer for the proper blade and speed required for the material to be cut.

Electrical Requirements

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor, with insulation having an outer surface that is green with or without yellow stripes, is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only three wire extension cords that have three-prong grounding plugs and three-pole receptacles that accept the tool's plug.*

Repair or replace a damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet that looks the one illustrated in Figure A below. The tool has a grounding plug that looks like the grounding plug as illustrated in Figure A below.

* Canadian electrical codes require extension cords to be certified SJT type or better.
** Use of an adapter in Canada is not acceptable.

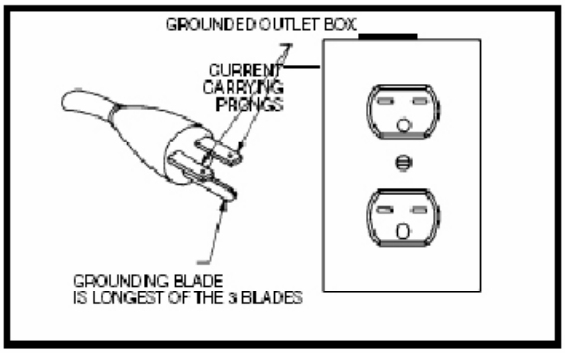


Figure A

Maintenance

Caution! **BEFORE CLEANING OR CARRYING OUT MAINTENANCE WORK, DISCONNECT THE MACHINE FROM THE POWER SOURCE (WALL SOCKET). NEVER USE WATER OR OTHER LIQUIDS TO CLEAN THE MACHINE. USE A BENCH BRUSH. DO NOT USE COMPRESSED AIR NEAR BEARINGS. REGULAR MAINTENANCE OF THE MACHINE WILL PREVENT UNNECESSARY PROBLEMS.**

Keep the table clean to ensure accurate cutting.

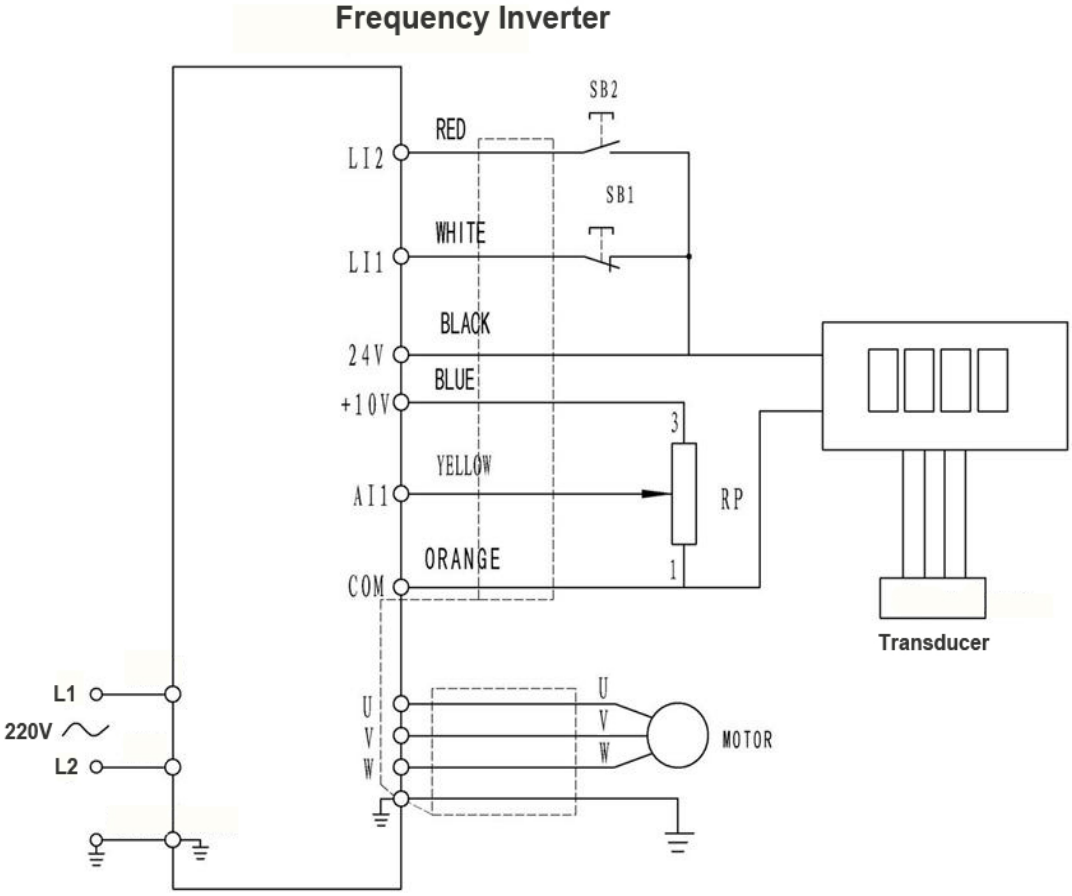
Keep the outside of the machine clean to ensure accurate operation of all moving parts and prevent excessive wear.

Keep the ventilation slots of the motor clean to prevent it from overheating.

Keep the inside (near the saw blade, etc.) clean to prevent accumulation of dust.

Wiring Diagram

WARNING! This machine must be grounded. Replacement of the power supply cable should only be done by a qualified electrician.



Troubleshooting

WARNING!

FOR YOUR OWN SAFETY, ALWAYS TURN OFF AND UNPLUG THE MACHINE BEFORE CARRYING OUT ANY TROUBLESHOOTING.

TROUBLE	PROBABLE CAUSE	REMEDY
The machine does not work when switched on.	1. No power supply. 2. Defective switch.	Check the cable for breakage. Contact your local dealer for repair.
The blade does not move with the motor running.	1. The quick release lever or blade tension handwheel has not been tightened. 2. The blade has come off one of the wheels. 3. The saw blade has broken. 4. The drive belt has snapped.	Switch off the motor, tighten the quick release lever or blade tension handwheel. Open the hinged door and check. Replace the blade. Replace the belt.
The blade does not cut in a straight line.	1. Fence for cutting not used. 2. Too fast feed rate. 3. The blade teeth are dull or damaged. 4. Blade guides not suitably adjusted.	Use a fence. Put light pressure on the workpiece & make sure the blade does not bend. Use a new blade. Adjust the blade guides (see the section on page 10).
The blade does not cut, or cuts very slowly.	1. The teeth are dull, caused by cutting hard material or long use. 2. The blade was mounted in the wrong direction.	Replace the blade, use a 6 T.P.I. blade for wood and soft materials. Use a 14 T.P.I. blade for harder materials. A 14 T.P.I. blade always cuts slower due to the finer teeth and the slower cutting performance. Fit the blade correctly.
Sawdust builds up inside the machine.	1. This is normal	Clean the machine regularly. Open the hinged door and remove the sawdust with a vacuum cleaner.
Sawdust inside the motor housing.	1. Excessive dust build-up on the machine exterior components.	Clean the ventilating slots of the motor with a vacuum cleaner. From time to time remove the sawdust to prevent it from being sucked into the housing
The machine does not cut at 45° or 90° angles.	1. The table is not at right angles to the blade. 2. The blade is dull or too much pressure was put on the workpiece.	Adjust the table. Replace the blade or put less pressure on the workpiece.
The blade cannot be properly positioned on	1. The wheels are not in alignment. Defective bearing. 2. The blade tracking knob hasn't been properly adjusted. 3. Inferior blade.	Contact Technical Support @ 877-884-5167 or techsupport@rikontools.com. Adjust the knob (see the section on page 9). Replace the blade.

For parts or technical questions contact: techsupport@rikontools.com or 877-884-5167.

Troubleshooting

Adjusting the Upper Blade Guide Bearings Parallel to the Blade

(Reference Guide Assembly parts diagram on page 26)

This step may not be necessary, it is factory preset. If adjustment is needed follow the steps below.

First slightly loosen part #23C Screw M8X16 (4 each) on rear of upper bandsaw housing. This will allow you to adjust the micro adjustment screws on part #21C (Guide Bracket).

Next place a 3mm “L” wrench through one of the holes in part #16C (Cover). Turning clockwise on the left two holes will adjust the left bearings to the right. Turning clockwise on the right two holes will adjust the right bearings to the left. Check bearings for parallel.

Lastly tighten parts #23C (4) on back of bandsaw housing. Repeat steps if the bearings are still not parallel.

Adjust Upper Bearings Which Will Not Track Close to the Blade

(Reference Guide Assembly parts diagram on page 26)

If the right or left upper bearings do not adjust to within 1/32” of the blade, the guide post (part #30C) may need adjustment.

First slightly loosen parts #23C (4) on the back of the upper bandsaw cabinet housing.

Next swing the upper guide post right or left until bearings are properly spaced on each side of blade. Tighten part #23C (4) on the back of the upper bandsaw cabinet housing.

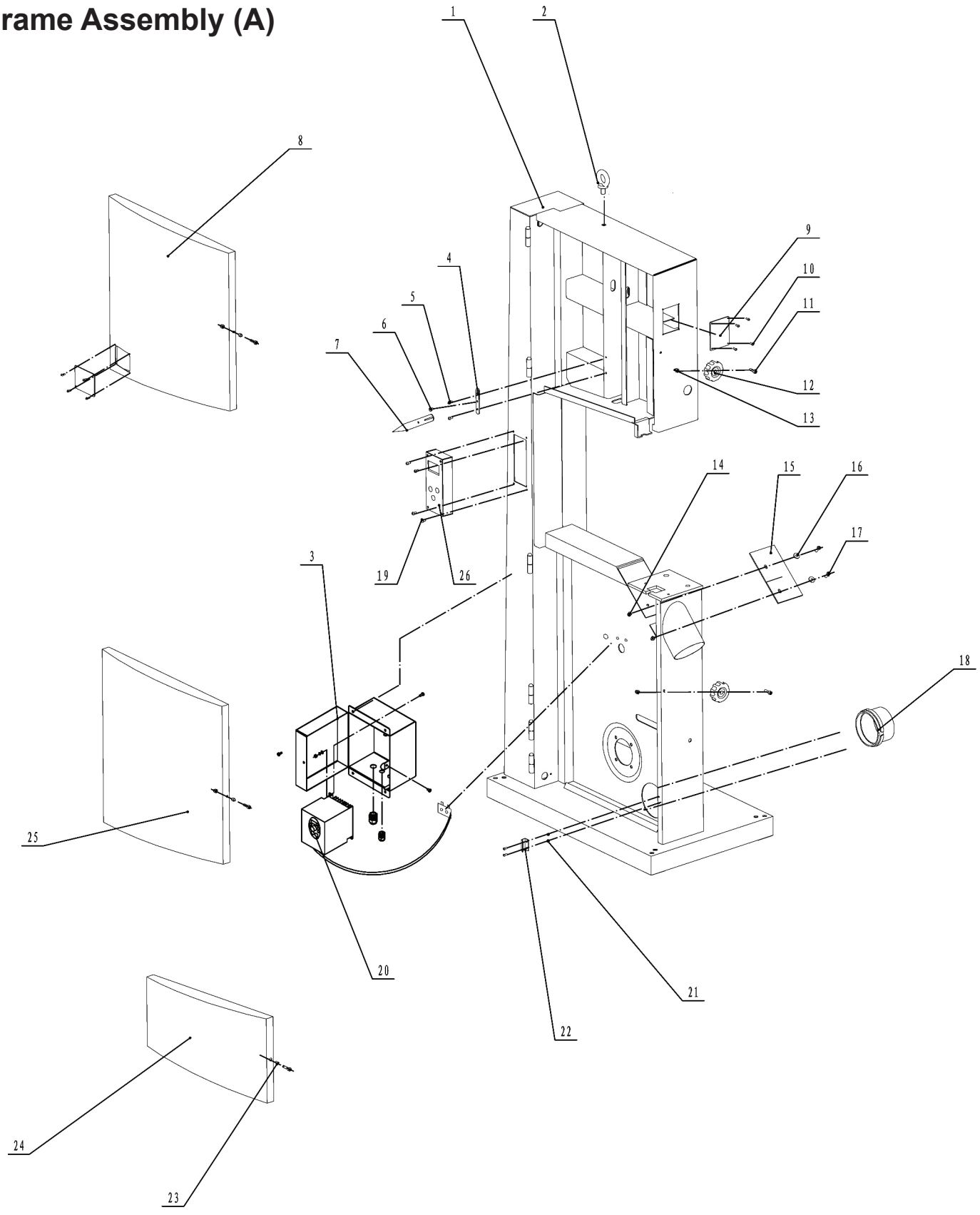
Changing Bandsaw Tire

Use a putty knife to get underneath the tire and pull it up and away from the wheel. Work the putty knife all the way around the wheel to loosen the tire. Then, use the putty knife as leverage to flip the tire over and off of the wheel. Clean the inside of the groove, removing any dirt, debris or cement with lacquer thinner.

Soak the replacement tire in warm water to make it more flexible. Let tire dry and lay on top of wheel. Start by setting the tire into the wheel groove at the top of the wheel. Using a putty knife, work the new tire around the wheel, making sure not to slice the tire. If rubber cement is to be used, make sure to distribute evenly. Having high spots between the wheel and the tire will cause a vibration and effect blade tracking.

Parts Diagram

Frame Assembly (A)



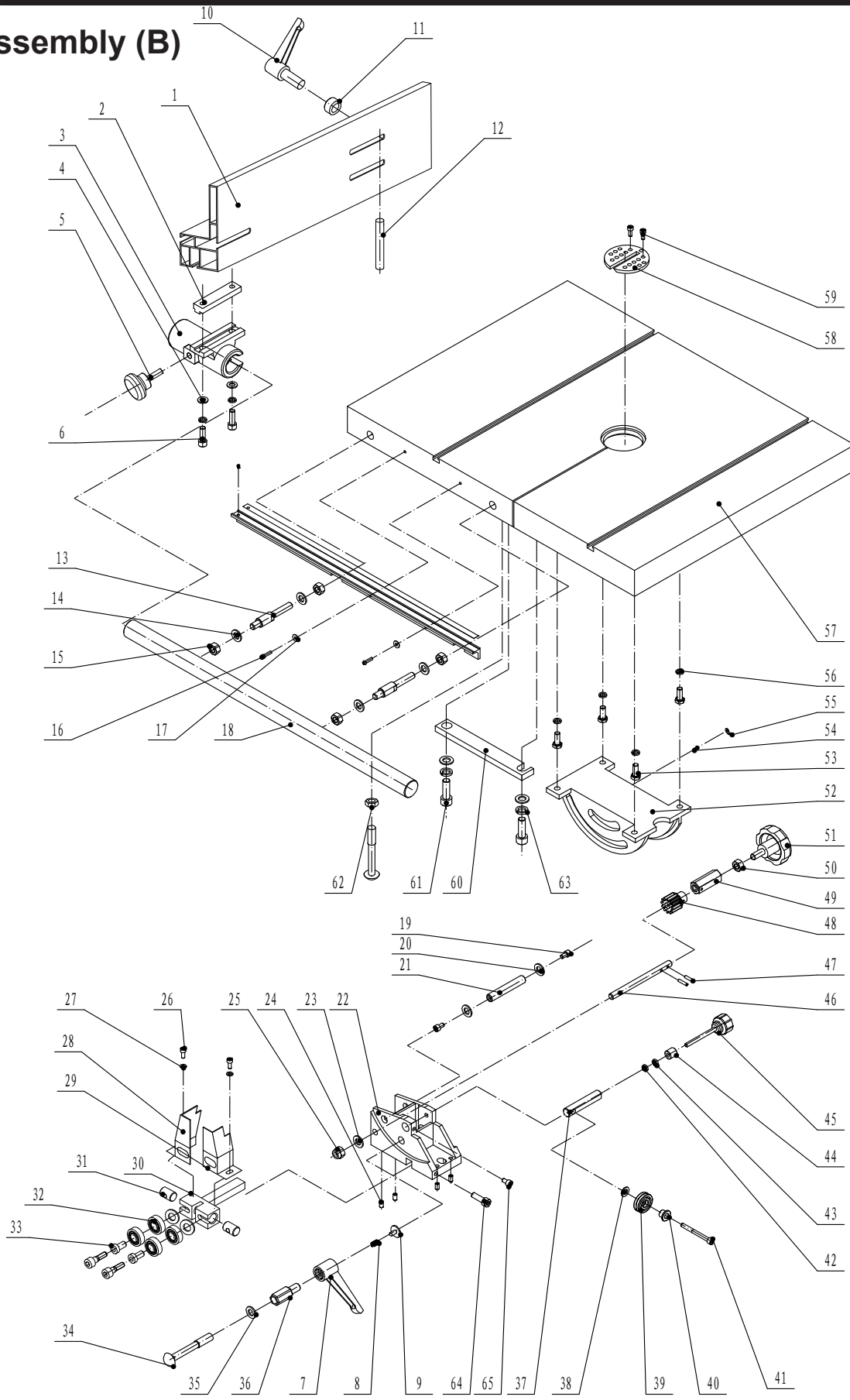
Parts List

Frame Assembly(A)

Key No.	Part No.	Description
1A	1-JL26011000M	Frame
2A	1-M12GB825Z	Ring
3A	1-JL94081000A	Inverter Box
4A	1-JL27010005	Indicator Adjustment Plate
5A	1-M5X8GB818Z	Tapping Screw M5X8
6A	1-JL26010010	Special Screw
7A	1-JL26010004	Blade Tension Indicator
8A	1-JL26012000A	Upper Wheel Cover
9A	1-JL26010001	Clear Window
10A	1-RVT3X7GB12618A	Rivet
11A	1-M6X20GB70Z	Hex. Socket Screw M6X20
12A	1-JL26010006-001S	Knob
13A	1-M6GB889Z	Nylon Nut M6
14A	1-M6GB6170Z	Hex. Nut M6
15A	1-JL26010013	Board
16A	1-WSH6GB96Z	Washer M6
17A	1-M6X16GB70Z	Hex. Socket Screw M6X16
18A	1-JL20010007-001S	Dust Port
19A	1-M5X12GB818Z	Tapping Screw M5X12
20A	1-ATV12HU15M2	Inverter
21A	1-M4GB889Z	Nylon Nut M4
22A	1-JL26010009	Locking Plate
23A	1-JL26010007	Bushing
24A	1-JL26013000	Small Wheel Cover
25A	1-JL26014000A	Lower Wheel Cover
26A	1-JL91042000E	Switch Box

Parts Diagram

Table Assembly (B)



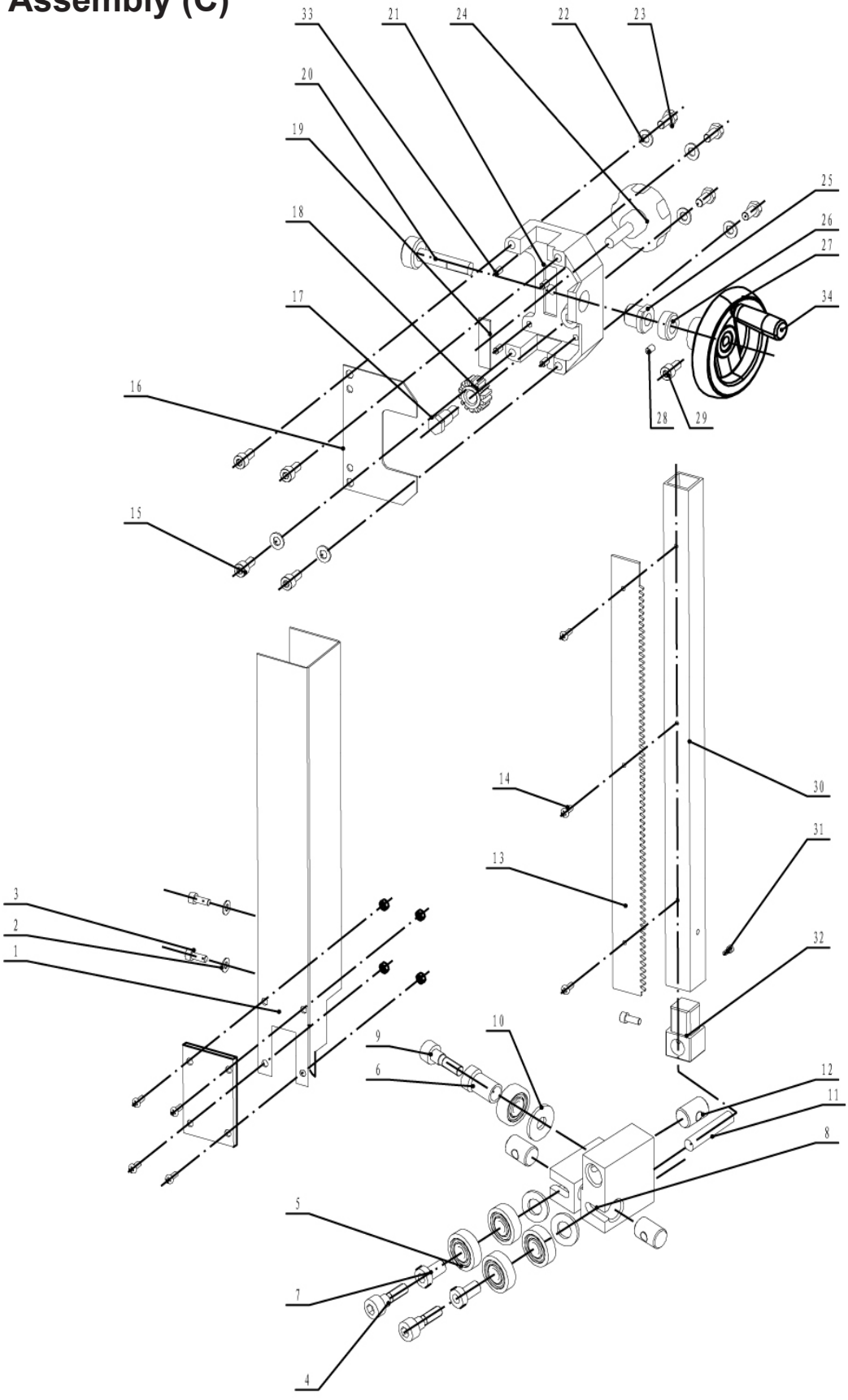
Parts List

Table Assembly (B)

Key No.	Part No.	Description
1B	1-JMBS1602060001	Fence
2B	1-JMBS1601060002	Lock Plate
3B	1-JMBS1601060003	Adjustable Base
4B	1-WSH6GB93Z	Spring Washer
5B	1-JL28060017	Handle
6B	1-M6X16GB70Z	Screw M6X16
7B	1-JL41031101	Handle
8B	1-JL41031102	Spring
9B	1-M6X10GB947B	Screw M6X10
10B	1-JL46084000A	Handle
11B	1-JL93010018	Bushing
12B	1-JL28061100	Re-Saw Bar
13B	1-JL28060005A	Upper Shaft
14B	1-WSH8GB97D1Z	Flat Washer 8
15B	1-M8GB6170Z	Hex. Bolt M8
16B	1-M4X15GB818Z	Screw M4X15
17B	1-WSH4GB97D1Z	Flat Washer 4
18B	1-JMBS1601060004	Fence Bar
19B	1-M6X10GB70Z	Screw M6X10
20B	1-WSH6GB5287Z	Flat Washer 6
21B	1-JL26050011	Guide Shaft
22B	1-JL26050004C	Lower Table Trunnion
23B	1-WSH10GB97D1Z	Flat Washer
24B	1-M6X12GB77Z	Screw
25B	1-M10GB889Z	Nylon Nut
26B	1-M6X12GB70Z	Screw M6X12
27B	1-WSH6GB97D1Z	Flat Washer
28B	1-JL26051002E	Left Cover
29B	1-JL26051003E	Right Cover
30B	1-JL26051001B	Lower Guide
31B	1-JL26041003	Guide Shaft
32B	1-BRG180201GB278	Bearing
33B	1-JL26041002	Tube
34B	1-M12X90GB801Z	Bolt
35B	1-WSH12GB97D1Z	Flat Washer
36B	1-JL26053001A	Shaft
37B	1-JL26052001A	Hex. Socket Cap Screw
38B	1-WSH8GB97D1Z	Flat Washer
39B	1-BRG180201GB278	Bearing
40B	1-JL26041006	Tube
41B	1-M8X25GB70Z	Hex. Socket Screw M8X25
42B	1-M6GB6172B	Nut M6
43B	1-M6GB6172B	Nut M6
44B	1-JL26052003	Tube
45B	1-JL26052002A001S	Adjustable Handle
46B	1-JL26054001	Gear Shaft
47B	1-PIN4X18GB879B	Roll Pin
48B	1-JL26054002	Small Gear
49B	1-JL26054003	Handle
50B	1-M10GB6170B	Nut
51B	1-JL26040015-001S	Blade Tracking Handle
52B	1-JL26050002B	Thrust Bearing Bracket
53B	1-M8X20GB5783Z	Carriage Bolt
54B	1-ST2D9X6D5GB845Z	Screw
55B	1-JL26050005A	Pointer
56B	1-WSH8GB93Z	Flat Washer
57B	1-JMBS1602030001-001G	Table
58B	1-JMBS1201030004	Table Insert
59B	1-M5X4GB80B	Set Screw
60B	1-JL27050009	Mounting Plate
61B	1-M8X16GB70Z	Screw M8X16
62B	1-M8GB6172Z	Hex. Nut M8
63B	1-WSH8GB93Z	Washer M8

Parts Diagram

Guide Assembly (C)



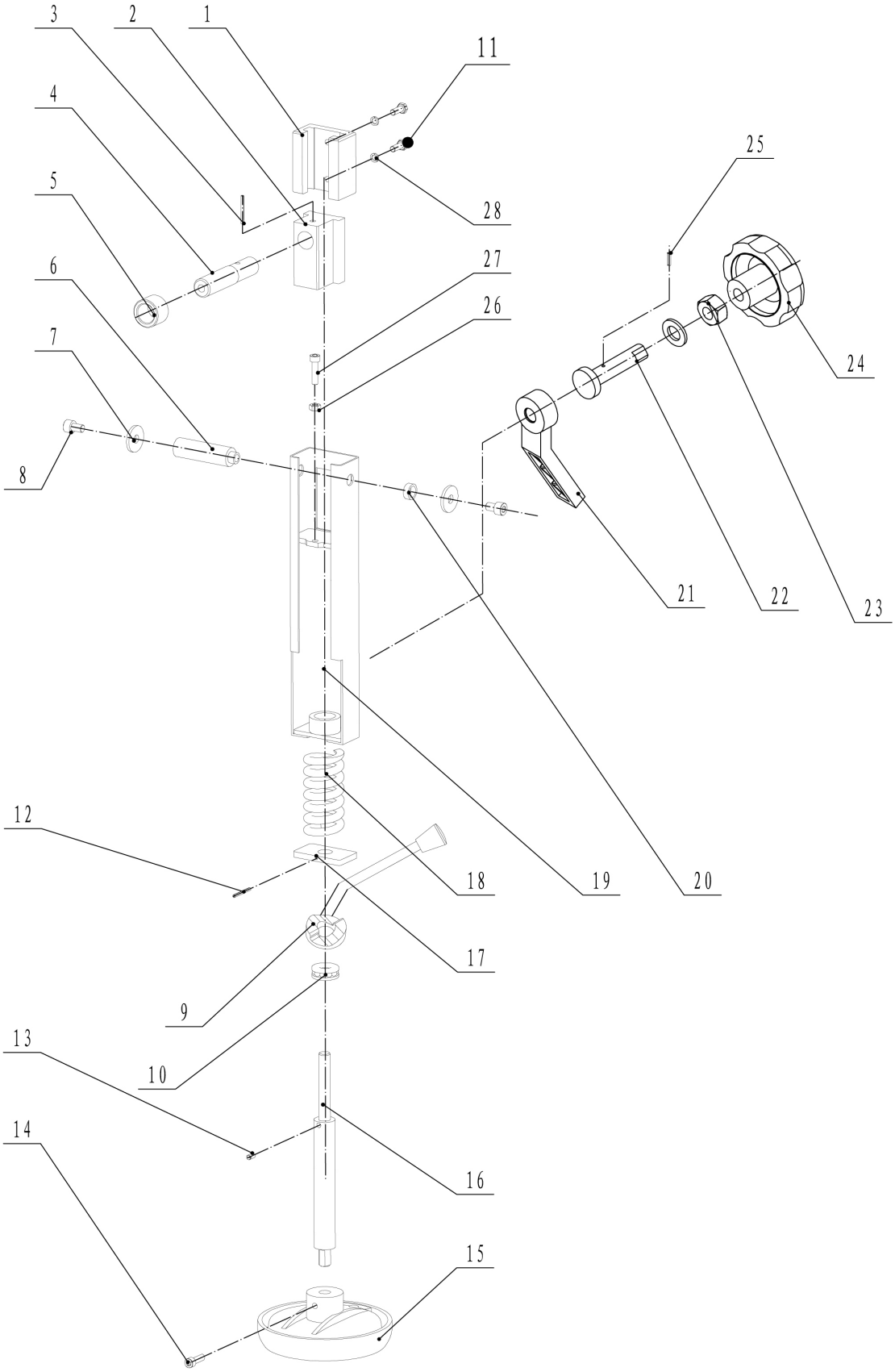
Parts List

Guide Assembly (C)

Key No.	Part No.	Description
1C	2-JL26042000C	Blade Guard Assembly
2C	1-WSH5GB97D1Z	Flat Washer M5
3C	1-M5X10GB70Z	Bolt M5X10
4C	1-M8X40GB70Z	Hex Bolt M8-1.25x45
5C	1-BRG180201GB278	Bearing
6C	1-JL26041006	Tube
7C	1-JL26041002	Tube
8C	1-JL26041001	Upper Guide Body
9C	1-M8X30GB70Z	Hex.Screw M8X30
10C	1-WSH8GB97D1Z	Flat Washer M8
11C	1-JL26041004	Adjusting bar
12C	1-JL26041003	Guide Ring
13C	1-JL26040001	Rack
14C	1-M4X10GB19Z	Screw M4X10
15C	1-M8X16GB70Z	Hex Bolt M8-1.25x16
16C	1-JL26040002	Cover
17C	1-JL26040006	Fixed Bolt
18C	1-1501006	Gear
19C	1-JL26040007	Fixed Plate
20C	1-JL26040004	Worm Cylinder
21C	1-JL26040008	Guide Bracket
22C	1-WSH8GB96Z	Washer M8
23C	1-M8X16GB5783Z	Screw M8X16
24C	1-JL26040015-001S	Table Tilting Knob
25C	1-JL26040003	Bushing
26C	1-CLP12GB884B	Retaining Ring
27C	1-JL26020012B-001G	Small Handwheel
28C	1-M5X8GB78Z	Screw M5X8
29C	1-M6X16GB70B	Screw M6X16
30C	1-JL26040009	Upper Guide Post
31C	1-M6X12GB70Z	Hex.Screw M6X12
32C	1-JL26041005	Guide Support Block
33C	1-M6X12GB77Z	Set Screw M6x12
34C	1-JL26020014-001S	Handwheel Handle

Parts Diagram

Blade Tension/Tracking (D)



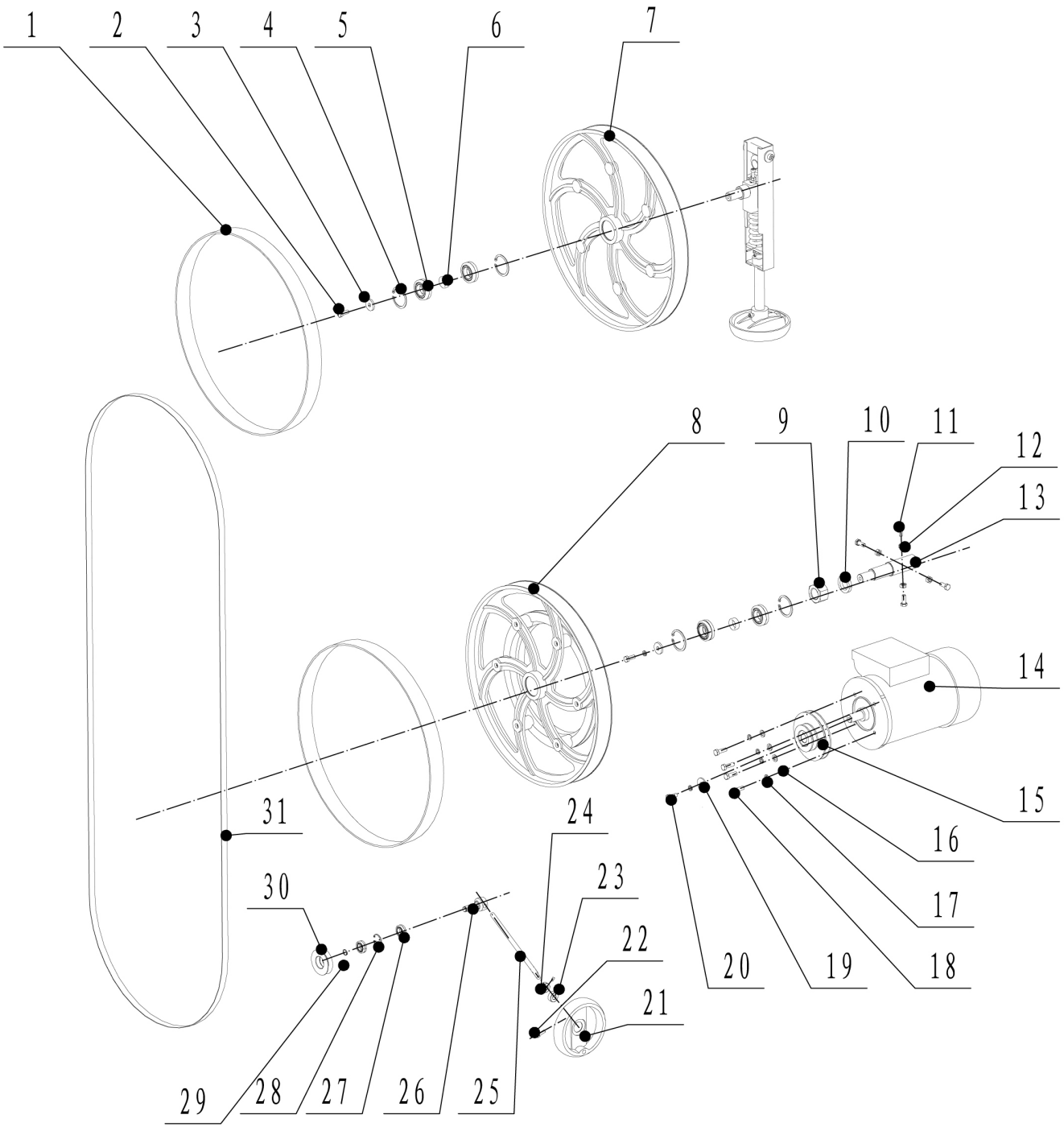
Parts List

Blade Tension/Tracking (D)

Key No.	Part No.	Description
1D	1-JL26030013	Sliding Rail
2D	1-JL26030009A	Upper Wheel Shaft Hinge
3D	1-PIN5X35GB879D1B	Pin Roll
4D	1-JL26020002A	Upper Wheel Shaft
5D	1-JL26030008	Bushing
6D	1-JL26030001A	Bearing
7D	1-WSH8GB5287Z	Washer 8MM
8D	1-M8X10GB70Z	Screw M8X10
9D	1-JL26030018	Shaft Hinge
10D	1-BRG51201GB301	Bearing
11D	1-M6X12GB5783Z	Hex. Bolt M6X12
12D	1-PIN2D5X16GB879B	Pin Roll
13D	1-M5X12GB73B	Set Screw M5X12
14D	1-M6X20GB70D1Z	Hex. Socket Screw M6X2
15D	1-JL26030012	Big Handwheel
16D	1-JL26020013	Crank
17D	1-JL26030010	Block
18D	1-JL26030011	Spring
19D	1-JL26031000B	Slide Bracket
20D	1-JL26030017A	Bushing
21D	1-JL26030016	Lock Handle
22D	1-JL26030020	Quick Stopper
23D	1-M12GB6170Z	Bolt
24D	1-JXBS2201040007	Blade Tension Handwheel
25D	1-PIN5X35GB879D1B	Slide Bracket Trunnion
26D	1-M6GB6170Z	Bolt
27D	1-M6X25GB70D1Z	Hex. Socket Screw M6X25
28D	1-WSH6GB93B	Spring Washer

Parts Diagram

Drive Assembly (E)



Parts List

Drive Assembly (E)

Key No.	Part No.	Description
1E	1-JL26020003	Tire
2E	1-M8X16GB70Z	Hex. Socket Screw M8X16
3E	1-WSH8GB5287Z	Washer M8
4E	1-CLP47GB893D1B	Retaining Ring
5E	1-BRG180204GB278D	Bearing
6E	1-JL26010018-001S	Tube
7E	1-JL26020001C	Upper Wheel
8E	1-JL26022001C	Lower Wheel
9E	1-M27X2GB6171Z	Hex Nut M27x2
10E	1-WSH27GB93Z	Spring Washer
11E	1-M8X16GB5783Z	Hex Bolt M8x16
12E	1-M8GB6170Z	Nut M8
13E	1-JL26020007	Lower Bandwheel Shaft
14E	1-H8040584-02	Motor
15E	1-JL26020011	Motor Pulley
16E	1-WSH8GB96Z	Washer M8
17E	1-WSH8GB93Z	Spring Washer
18E	1-M8X16GB70D1Z	Hex. Socket Screw M8X16
19E	1-WSH8GB5287Z	Washer M8
20E	1-M8X20GB5783ZF	Hex Bolt M8x20
21E	1-JL26020012	Small Handwheel
22E	1-M6X12GB78Z	Screw M6X12
23E	1-CLP10GB884Z	Circlip Ring
24E	1-M5X8GB78Z	Screw M5X8
25E	1-JL26020013	Thread Rod
26E	1-JL26020009	Shaft-V Belt Pulley
27E	1-BRG80101GB278	Bearing
28E	1-CLP28GB893D1B	Circlip Ring
29E	1-CLP12GB894D1B	Ring M12
30E	1-JL26020008	V Belt Pulley
31E	1-JL26020004B	Blade

How-To's for all Band Saw Blades

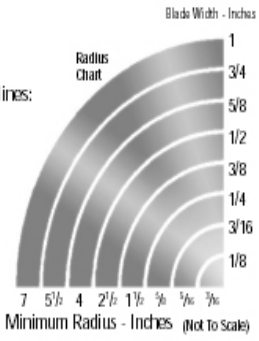
Choosing the Correct Blade Width

Blade width is measured from the tips of the teeth to the back edge of the blade as shown above. The instructions for the particular machine being used should be followed when selecting blade width.

If no such instructions are provided, blade width should be determined with the following guidelines:

For Cut-Off Sawing, the blade should be as wide as the machine will allow. The wider the band is, the straighter the cut will be. Faster feeding can be achieved.

For Contour Sawing, the blade should be as wide as the machine allows, but still narrow enough so that it can cut the desired shape (radius). Minimum dimensions for different cutting radii are shown on the chart at right.



How To Choose The Correct Number Of Teeth Per Inch (TPI)

The number of teeth per inch (TPI) is important in obtaining the finish desired and the proper feed rate. A coarse tooth blade (2, 3 TPI) should be used for resawing wood and cutting thicker stock up to 8". A fine toothed blade (18 to 32 TPI) should be used for thinner metals and plastics under 1/4". For general cutting of 3/4" wood 4 TPI will provide a fast cut and 14 TPI will cut slow, but leave a smoother finish.

When Selecting TPI remember:

- More TPI give a smoother but slower cut
- Fewer TPI allow a faster cut with a slightly rougher finish
- At least three teeth must be in the workpiece—the chart to the right will help you decide.

TPI	Minimum Material Thickness
32	3/32"
24	1/8"
18	5/32"
14	1/4"
10	5/16"
8	3/8"
6	1/2"
4	3/4"
3	1"
2	1-1/2"

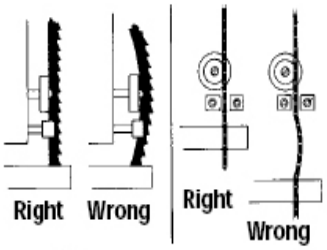
It is important to know the SFM for the various speed settings of your band saw, so that you can select the proper speed for cutting wood or other materials. Check the operator's manual of your band saw to determine the SFM or use the following procedure:

1. Determine the RPM: check the operator's manual or clock the revolutions per minute of the wheels with a tachometer or revolution counter.
2. Measure the diameter of the drive wheel in inches and multiply by .262 to obtain the wheel circumference. The RPM times circumference equals the surface speed of the blade.
   RPM x diameter in inches x .262 = SFM.

Note: Spring Steel Wood Cutting Band Saw Blades should never be operated at surface speeds above 3000 SFM. Carbon Hard Edge Flexible Back Band Saw Blades may be run up to 8000 SFM.

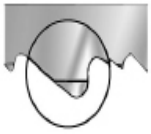
Installing your Band Saw Blade

1. Unplug the saw, then loosen the tension on the upper wheel. With all the blade guides backed off, slip the new blade around the wheels and then tension it.
2. When you have tensioned the blade enough to keep it on the wheels, track it by turning the upper wheel with one hand while adjusting the tilt of the wheel's axis with the other hand. The blade should ride in the middle of the rim. **Never track the blade with the motor running and the cover open.**
3. Next, adjust the blade guides; first the thrust bearings: upper and lower, then the left had side guides.
4. Use a square to make sure you are not pushing the blade out of line and place a piece of white paper between the blade guide and the blade to allow for clearance.



Diagnosing Problems

1. Premature and Excessive Tooth Wear



- Feed pressure too light, increase it.
- Lower band velocity.
- Improper tooth selection, use a finer pitch.
- Improper break-in with new band. Velocity and feeding should be reduced the first few cuts.
- Teeth are running the wrong direction. Be sure teeth are pointing in proper direction.
- Incorrect saw guide insert size for the band, allowing them to strike teeth

2. Blade Vibration

- Increase or decrease band velocity.
- Teeth too coarse for workpiece.
- Material not securely held.
- Increase tension of band.
- Increase feed pressure.

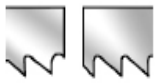
3. Gullets Loading

- Teeth too fine for workpiece - use a coarser pitch.
- Decrease band velocity.

4. Band Stalls in Work

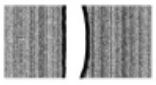
- Feed pressure too great - decrease feed.
- Teeth too coarse, use finer tooth blade

5. Premature Blade Breakage



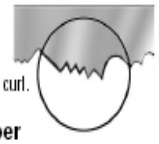
- Thickness of blade too heavy for diameter of wheels and speed of machine
- Increase or decrease velocity
- Check wheels for defects
- Teeth too coarse for workpiece –use a finer pitch
- Decrease blade tension
- Decrease feeding force
- Brittle weld – increase annealing period, decreasing heat gradually
- Check for proper adjustment of band guides, saw guides, saw guide inserts, and back-up bearings.

6. Blade Making Belly-Shaped Cuts



- Increase tension.
- Adjust guides closer to workpiece.
- Teeth too fine – use a coarse pitch.
- Decrease feed force.
- Teeth dull.

7. Tooth Strippage



- Teeth too coarse for workpiece.
- Material not securely held.
- Too much feed pressure –reduce for good chip curl.
- Band velocity too low – increase speed.

8. Band Develops a Negative Camber

- Band is riding on saw guide backup bearing too heavily. Adjust band for alignment on top and bottom wheels.
- Check band wheel alignment.

9. Blade Not Running True Against Saw Guide Backup Bearing

- If clicking noise against saw guide backup bearing, remove burr on band.
- Check band wheel alignment.
- Check saw guide backup bearing for wear, replace if necessary
- Weld not in proper alignment. Reweld blade straight and true.

10. Cutting Rate Too Slow

- Increase band velocity.
- Increase feed pressure.
- Use a coarser pitch.

11. Blade Leading In Cut

- Reduce feed pressure or rate.
- Check adjustments and wear of saw guides or rollers.
- Lack of band tension.
- Tooth set damage.

12. Premature Loss of Set

- Improper width selection - check chart for correct width for radius cutting.
- Reduce band velocity.

13. Band Develops Positive Camber

- Decrease force.
- Use a coarser pitch to increase tooth penetration.
- Adjust saw guides closer to work.

14. Band Develops Twist

- Wrong width for radius being cut – choose a narrower blade.
- Binding in cut – decrease feed pressure.
- Decrease band tension.
- Adjust saw guides further from workpiece.

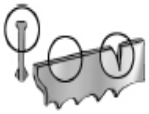
15. Finished Cut Surface Too Rough

- Improper tooth selection – choose a finer pitch.
- Increase band velocity.
- Decrease feed rate.

16. Band Scoring (side wear or grooving)

- Check for wear on saw guide inserts.
- Too much pressure on saw guide inserts.
- Check alignment of saw guides – be sure they are square to front vise. Replace or clean guides.

17. Burring or Mushrooming of Blade Back Edge



- Increase tension and adjust guides.
- Check contact between blade and back edge rollers.
- Reduce feed pressure.
- Use coarser pitch blade.
- Use finishing stone.

Warranty

RIKON POWER TOOLS

2-Year Limited Warranty

RIKON Power Tools Inc. (“Seller”) warrants to only the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship for a period of two (2) years from the date the product was purchased at retail. This warranty may not be transferred.

This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs, alterations, lack of maintenance or normal wear and tear. Under no circumstances will Seller be liable for incidental or consequential damages resulting from defective products. All other warranties, expressed or implied, whether of merchantability, fitness for purpose, or otherwise are expressly disclaimed by Seller. This warranty does not cover products used for commercial, industrial or educational purposes.

This limited warranty does not apply to accessory items such as blades, drill bits, sanding discs or belts and other related items.

Seller shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty proof of purchase documentation, which includes date of purchase and an explanation of the complaint, must be provided.

The Seller reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

To take advantage of this warranty, please fill out the enclosed warranty card and send it to:
RIKON Warranty
16 Progress Rd.
Billerica, MA 01821

The card must be entirely completed in order for it to be valid. If you have any questions please contact us at 877-884-5167 or warranty@rikontools.com.

RIKON POWER TOOLS

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